

System and Method for Utilizing Power Management Functionality Between DSL Peers

Abstract of the Disclosure

A system and method is provided for integrating the functionality of an interface to a power management driver for a communications system and the communications protocol which negotiates power management transitions. Initially, a driver power management request is received at the UPI component. In response, the UPI component, determines whether a port is open on which to send the state transition request. If it is determined that a port is open, it is next determined whether a suitable power management protocol is available. If it is determined that a port is open and the power management protocol is available, the UPI sends a power management state transition request through the EOC to the remote modem. Next, it is determined whether the remote modem has responded. If it is determined that the remote modem has responded negatively, or failed to respond, the link state protocol interface layer (port manager) is notified, and the port is closed, after which the primary interface is notified, which powers down the communications system and acknowledges the request to the driver. Conversely, if it is determined that the remote modem responded positively, (i.e., the remote modem acknowledged the request to transition power management states), the EOC notifies the port manager, which invokes the negotiated power management state transition, leaves the port open, and then notifies the UPI component, which acknowledges the driver request.

Figures